

Mouse Camk2a Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP14780b**Specification**

Mouse Camk2a Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [P11798](#)**Mouse Camk2a Antibody (C-term) Blocking Peptide - Additional Information****Gene ID** 12322**Other Names**

Calcium/calmodulin-dependent protein kinase type II subunit alpha, CaM kinase II subunit alpha, CaMK-II subunit alpha, Camk2a

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Mouse Camk2a Antibody (C-term) Blocking Peptide - Protein Information**Name** Camk2a**Function**

Calcium/calmodulin-dependent protein kinase that functions autonomously after Ca(2+)/calmodulin-binding and autophosphorylation, and is involved in various processes, such as synaptic plasticity, neurotransmitter release and long-term potentiation (By similarity). Member of the NMDAR signaling complex in excitatory synapses, it regulates NMDAR-dependent potentiation of the AMPAR and therefore excitatory synaptic transmission (By similarity). Regulates dendritic spine development (By similarity). Also regulates the migration of developing neurons (By similarity). Phosphorylates the transcription factor FOXO3 to activate its transcriptional activity (PubMed:23805378). Phosphorylates the transcription factor ETS1 in response to calcium signaling, thereby decreasing ETS1 affinity for DNA (PubMed:15994560). In response to interferon-gamma (IFN-gamma) stimulation, catalyzes phosphorylation of STAT1, stimulating the JAK- STAT signaling pathway (By similarity). In response to interferon-beta (IFN-beta) stimulation, stimulates the JAK-STAT signaling pathway (By similarity). Acts as a negative regulator of 2-arachidonoylglycerol (2- AG)-mediated synaptic signaling via modulation of DAGLA activity (PubMed:23502535).

Cellular Location

[Isoform Alpha KAP]: Cytoplasm

Tissue Location

[Isoform Alpha CaMKII]: Expressed in brain.

Mouse Camk2a Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

Mouse Camk2a Antibody (C-term) Blocking Peptide - Images**Mouse Camk2a Antibody (C-term) Blocking Peptide - Background**

CaM-kinase II (CAMK2) is a prominent kinase in the central nervous system that may function in long-term potentiation and neurotransmitter release. Member of the NMDAR signaling complex in excitatory synapses it may regulate NMDAR-dependent potentiation of the AMPAR and synaptic plasticity (By similarity).

Mouse Camk2a Antibody (C-term) Blocking Peptide - References

Hund, T.J., et al. J. Clin. Invest. 120(10):3508-3519(2010) Xu, L., et al. Circ. Res. 107(3):398-407(2010) Guetg, N., et al. Proc. Natl. Acad. Sci. U.S.A. 107(31):13924-13929(2010) Blaich, A., et al. Proc. Natl. Acad. Sci. U.S.A. 107(22):10285-10289(2010) Jenkins, M.A., et al. J. Neurosci. 30(15):5125-5135(2010)